

On Guard



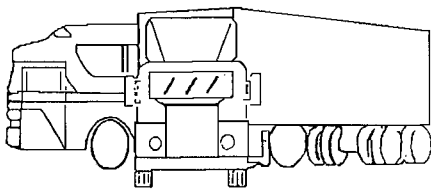
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WHEEL SEPARATIONS



WHEEL SEPARATIONS! Recently several motor carriers have had serious accidents resulting in injuries and fatalities due to wheel separations. In Miami, Florida, a school bus was struck head on by a wheel and tire that had sheared off the steering axle of a straight truck. Investigation determined the wheel bearing seized and the axle spindle sheared. The tire and wheel bounced over a concrete median barrier into the windshield of the bus. Two children were killed instantly, one adult died of injuries later. The motor carrier was unable to present any indication or evidence that the vehicle had ever been inspected or maintenance performed.

This and other wheel separations appear to have resulted, at least in part, from poor inspection and maintenance practices. Wheel separations may be caused by inadequate lubrication, faulty hardware (counterfeit bolts), over-torquing wheel nuts, or allowing the vehicle to operate with loose wheel nuts. Lost wheels also result from improperly secured spares. A systematic inspection, repair and maintenance program (as required by Federal Motor Carrier Safety Regulations, 49 CFR 396.3) can help detect small problems before they become accidents.

The FHWA has conducted a wheel separation accident study to determine if there is a pattern, either mechanical or maintenance related, behind these wheel separation accidents. Initial results indicate that manufacturers' recommended practices may not have been followed during inspection and repair of wheel or hub assemblies.

The FHWA is advising motor carriers to pay particular attention to manufacturers' torque specifications when adjusting wheel bearings and tightening wheel nuts and bolts. Carriers should also, as a part of their normal inspection procedure, check wheel assemblies for cracks and to ensure that fastener torque ranges are maintained.

Two recent regulatory changes have been promulgated to improve inspection and maintenance practices. Effective January 1, 1992, 49 CFR 396.25, motor carrier personnel responsible for inspections, maintenance, repairs or service to brakes must be qualified. Also, 49 CFR 396.19 requires motor carriers to use qualified personnel to perform an annual inspection. These sections require motor carriers to maintain evidence of the inspector's qualifications.

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